National Institute of Environmental Health Sciences

Climate and human health: The impact of climate change on vector-borne diseases, Paphos, Cyprus (17-19 October 2012)

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Abstract:

Climate change is expected to impact widely upon human health, including changes in the geographic distribution of vectors that carry severe diseases such as malaria, Dengue fever, Chikungunya, and others. Countries in the Eastern Mediterranean and Middle East (EMME) have historically been devastated by such diseases, and may represent regions at particular future risk given projections of greater changes in climate than average global estimates. They also border regions where vector-borne diseases (VBDs) are endemic. The Cyprus Institute and the Grantham Institute for Climate Change at Imperial College London recently established a close collaboration and modelling consortium to study the impacts of climate change on VBDs in the EMME, and facilitating this workshop to establish key challenges in the field represented an important first output of this collaboration. Over three days from 17th to 19th October 2012, researchers from Cyprus, the UK, several European countries, the USA, and Israel provided an overview of recent research into climate impacts on VBDs, discussing, in particular, how better projections of climate change impacts on these diseases may be obtained in future work. The development of tools such as mathematical models to help plan strategies for the control of both vectors and the diseases they transmit formed a key focus; the greatest threats to the EMME were also identified and the climatic sensitivity of these diseases was discussed at length.

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Resource Description

Early Warning System:

resource focus on systems used to warn populations of high temperatures, extreme weather, or other elements of climate change to prevent harm to health

A focus of content

Exposure :

weather or climate related pathway by which climate change affects health

Ecosystem Changes, Temperature

Temperature: Fluctuations

Geographic Feature:

resource focuses on specific type of geography

Ocean/Coastal

Geographic Location: ☑

resource focuses on specific location

Non-United States

Non-United States: Asia, Europe

Asian Region/Country: Other Asian Region

Other Asian Region: middle east

European Region/Country: European Region

Other European Region: eastern mediterannean

Health Impact: ☑

specification of health effect or disease related to climate change exposure

Infectious Disease

Infectious Disease: Vectorborne Disease

Vectorborne Disease: General Vectorborne

Mitigation/Adaptation: ☑

mitigation or adaptation strategy is a focus of resource

Adaptation

Model/Methodology: ☑

type of model used or methodology development is a focus of resource

Methodology, Other Projection Model/Methodology

Other Projection Model/Methodology: discussion only

Resource Type: ☑

format or standard characteristic of resource

Review

Timescale: ☑

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☑

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content